TECHNICAL MEMORANDUM

Date: May 20, 2015 **Project No.:** 013-1646-015.400.01

To: Will Ernst **Company:** The Boeing Company

From: Denise Carscadden, Michael Lumpkin,

cc: Kent Angelos, Ted Norton (Golder Associates Inc.)

RE: **2-10 BUILDING AIRLINE/ELECTRICAL CONDUIT TRENCH COMPLETION**

1.0 INTRODUCTION

The Boeing Company (Boeing) excavated a trench for installation of an electrical conduit and a compressed airline (both approximately 1-inch diameter) in the southern end of 2-10 Building at Boeing Plant 2 on March 28 and March 29, 2015 (Figure 1). The work included removing the existing concrete floor slab; excavating soil; installing both the airline and conduit; backfilling the trench; and patching the concrete (Figure 2).

The construction area is located within the Plant 2 Paved Industrial Area and is contained within the footprint of Resource Conservation and Recovery Act (RCRA) Solid Waste Management Unit (SWMU) 2-10.8, Anodic and Alodine Tank Lines (Figure 2). This unit previously consisted of a tank line (10 open-top tanks) and a below-grade concrete structure used as secondary containment for chemical and electroplating processes. This unit was decommissioned in 1993, the tanks were removed, and the secondary containment structure was pressure washed (Weston 2000). The structure was left in place, backfilled with imported sand and gravel, and a concrete floor slab was poured to match the adjacent floor. The airline/conduit trench excavation was located completely within the concrete structure backfill.

This technical memorandum summarizes the excavation activities and provides a summary of construction support activities.

2.0 EXCAVATION

The excavation was completed to install a new pneumatic airline and electrical conduit. The configuration of the airline/conduit trench is an “L” shape located in the southwest corner of the 2-10 Building (Figure 2). The trench excavation was entirely within imported backfill previously placed in the concrete containment structure of SWMU 2-10-8. Excavation for the airline/conduit trench was approximately 2 feet wide, 4 inches deep, and approximately 80 feet long.

All excavated materials were properly managed for characterization and disposition per standard Boeing waste handling procedures. Approximately 2 cubic yards (cy) of soil were excavated, segregated into lined metal containers, before being reused as backfill in the trench. Approximately 6 cy of concrete were

Golder Associates Inc.
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052 USA
Tel: (425) 883-0777 Fax: (425) 882-5498 www.golder.com

removed and transported offsite to a recycling facility. Groundwater was not encountered during the excavations, as the groundwater surface at Plant 2 is typically 10 to 12 feet bgs.

3.0 CONSTRUCTION AND SUPPORT ACTIVITIES

Construction support activities were conducted in accordance with the Plant 2 General Construction Health and Safety Plan (Golder 2013) and in accordance with Boeing's environmental, health and safety requirements. The support activities included visual monitoring of concrete removal and soil excavation. The work area and excavated materials were monitored for volatile organic compounds (VOCs) using a photoionization detector (PID) during sawcutting, slab removal, and excavation. Air monitoring measurements with the PID were non-detect for VOCs and no impacted pavement or soils were observed or detected by the field monitoring.

The excavated concrete and soil materials were segregated as they were removed and properly managed for reuse, or characterization and disposal per standard Boeing waste handling procedures. No construction sampling of soil or groundwater was necessary based on the historical information, historical analytical data, and field monitoring.

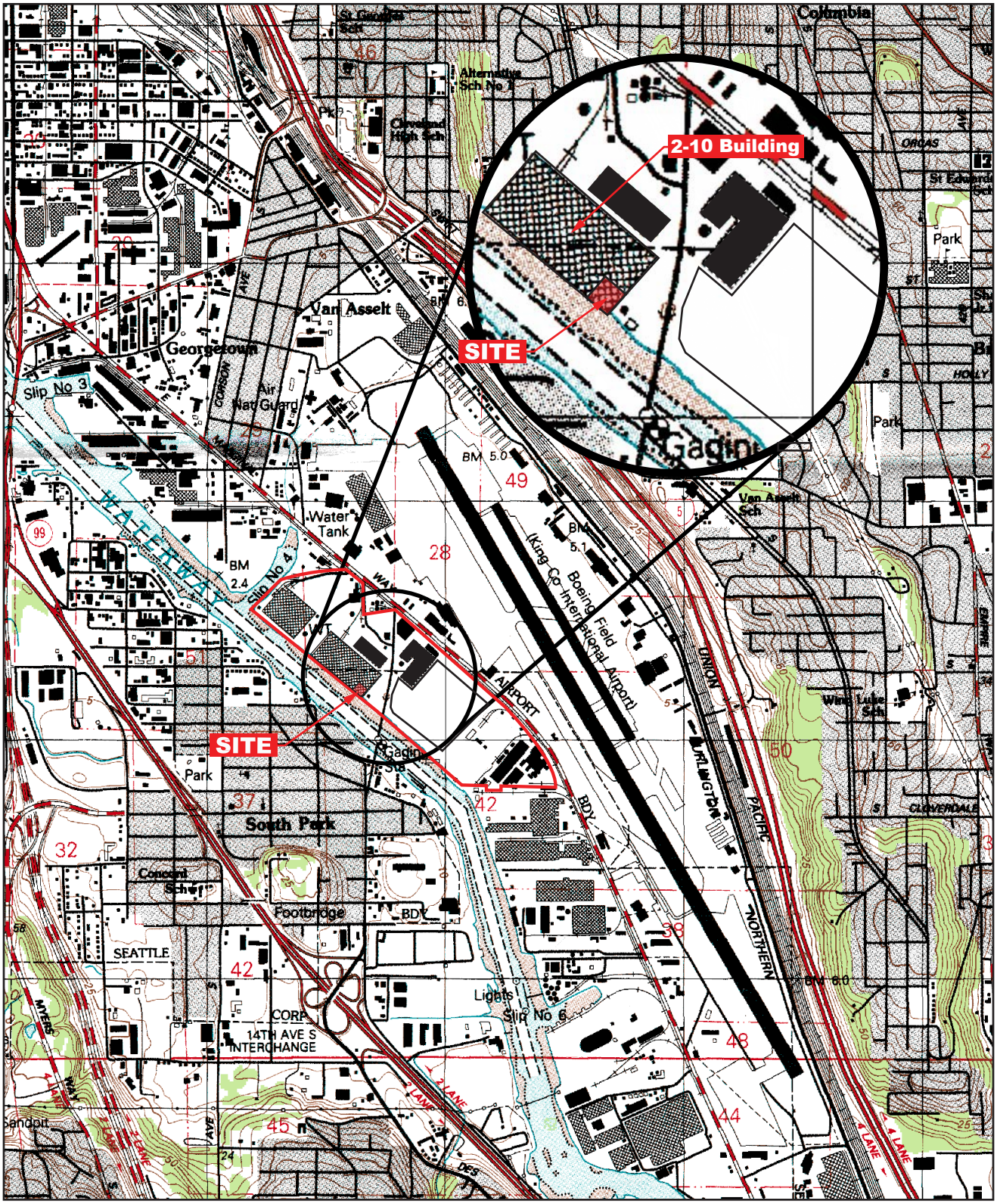
4.0 REFERENCES

Golder Associates Inc. (Golder). 2013. Boeing/Plant 2 General Construction Health, Safety and Environment Plan, Version 2, prepared for Boeing Plant 2, August 13.

Roy F. Weston. (Weston) 2000. Technical Memorandum, SWMU/AOC/OA – Specific Data Presentation, RCRA Corrective Measures Study, Boeing Plant 2, Seattle/Tukwila, Washington.

List of Figures

FIGURES



Golder Associates			
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	AMP	ML	03/10/15

Boeing Plant 2
2-10 Building Airline and Electrical Conduit Trench Technical Memorandum
Seattle/Tukwila, Washington

Figure 1
Vicinity Map

0131646014_400_003.ai

AOC 2-10.2A

AOC 2-10.5

2-10 Building

Backfilled Secondary Containment Structure

SB-01019

SWMU 2-10.8

2-10-DP-110

PL2-232A

SB-01040

SB-01018

SB-01041

SB-01022

OA 8 (SWMU 2-09.2)

LEGEND

- Soil Sample Location
- Groundwater Sample Location
- Proposed Conduit/Airline Trench
- Buildings Outline
- Backfilled Containment Structure
- 25 ft Buffer
- RCRA Unit

0 10 20 40

Feet

REFERENCE(S)

1. GOLDER ASSOCIATES INC. (SAMPLE LOCATIONS)
2. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

CLIENT
BOEING
SEATTLE, KING COUNTY, WA

PROJECT
BOEING/PLANT 2 CMS & CONST SUPPORT

TITLE
2-10 BUILDING AIRLINE AND ELECTRICAL CONDUIT TRENCH HISTORICAL SOIL AND GROUNDWATER SAMPLE LOCATIONS

CONSULTANT
Golder Associates

YYYY-MM-DD	2015-05-20
DESIGNED	-
PREPARED	TH
REVIEWED	DC
APPROVED	ML

PROJECT NO.	CONTROL	REV.	FIGURE
0131646015	400.1	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

PATH: G:\Boeing\Plant 2\99_PROJECTS\0131646015_CMS_CONSTRUCTION_SUPPORT\400_PlantWideActions_Construction\02_PRODUCTION\MXD\FIGURES\Rev0\0131646015_400_F2_Rev0_2015_02_09.mxd